Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims

1-17. (Canceled)

18. (New) An apparatus for purifying contaminated water by photochemical oxidation, comprising a flow channel through which at least a sub-flow of water is directed and in which the water is irradiated with UV electromagnetic radiation from an array of a plurality of UV lamp assemblies, each of said UV lamp assemblies including a high-pressure UV halogen lamp which is mounted generally parallel with a flow direction in the channel and a tubular UV absorber disposed around each lamp.

19. (New) The apparatus according to claim 18, wherein the absorber is made of an infrared radiation absorbing material.

20. (New) The apparatus according to claim 18, wherein the absorber is made of or coated by a radiation protective material shielding a wave length that decomposes or prevents creation of $OH^{\bullet}$ and atomic oxygen O^{3P}.

21. (New) The apparatus according to claim 18, wherein the lamp assembly includes means for supplying a dispersion chemical to the water upstream of the UV high-pressure lamp.

22. (New) The apparatus according to claim 21, wherein at least one oxidation chemical is dispersed in the water.

23. (New) The apparatus according to claim 22, wherein said oxidation chemical is oxygen, hydrogen peroxide, ozone, perchloric acetic acid or any combination thereof.

24. (New) The apparatus according to claim 18, wherein the UV high-pressure lamp radiates intensive UV electromagnetic radiation with a wave length in a range of 150 nm to 260 nm.

25. (New) The apparatus according to claim 24, wherein the UV high-pressure lamp radiates intensive UV electromagnetic radiation with the wave length in the range of 160 nm to 220 nm.

26. (New) The apparatus according to claim 25, wherein the UV high-pressure lamp radiates intensive UV electromagnetic radiation with the wave length in the range of 192 nm to 205 nm.

27. (New) The apparatus according to claim 24, wherein the UV high-pressure lamp radiates the water with at least 25 mJ/cm^2.

28. (New) The apparatus according to claim 27, wherein the UV high-pressure lamp radiates the water with at least 120 mJ/cm^2.

29. (New) The apparatus according to claim 18, wherein the array of lamp assemblies is arranged in a parallel configuration in a cassette module, which is insertable into the flow channel.

30. (New) The apparatus according to claim 18, wherein the tubular absorber is coated at least on an inner side with an absorber mass, such as Silicium Carbide (SiC) or titaniumdioxide (TiO_2) or an absorber film of Siliciumdioxide (SiO_2) and titaniumdioxide (TiO_2).

31. (New) A method of purifying contaminated water by photochemical oxidation, comprising directing at least a sub-flow of water through a flow channel and irradiating the water with UV electromagnetic radiation from an array of UV lamp assemblies each having a UV halogen high-pressure lamp which has energy intensive wave lengths in a range of 150 nm to 260 nm, each of the lamp assemblies including a tubular UV absorber disposed around the lamp that shields the water flow through the lamp assembly.

32. (New) The method according to claim 31, wherein the absorber is made of an infrared radiation absorbing material.

33. (New) The method according to claim 31, wherein the absorber is made of or coated by a radiation protective material that prevents decomposition of $OH^{\bullet}$ and prevents creation of atomic oxygen O^{3P}.

34. (New) The method according to claim 31, wherein a dispersion chemical is supplied into the water flow upstream of the UV high-pressure lamp in an inlet opening of the tubular absorber.

35. (New) The method according to claim 34, wherein at least one oxidation chemical is dispersed in the water.

36. (New) The method according to claim 35, wherein the oxidation chemical is oxygen, hydrogen peroxide, ozone, perchloric acetic acid or any combination thereof.

37. (New) The method according to claim 31, wherein the UV high-pressure lamp radiates the water with at least 25 mJ/cm^2.

38. (New) The method according to claim 31, wherein the UV high-pressure lamp radiates the water with at least 120 mJ/cm^2.

39. (New) The method according to claim 31, wherein an array of lamp assemblies is arranged in a parallel configuration in the flow channel in a cassette module, which is inserted into the flow channel.